

8. (withdrawn) An improved power assisted lever arm ratchet as described in claim 7 in which said ratchet extension and ratchet extension shaft are approximately six to thirty inches in length.

9. (withdrawn) An improved power assisted lever arm ratchet which is comprised of a ratchet head fixedly attached to a ratchet extension, a ratchet extension shaft fixedly attached to said ratchet head and a removable ratchet handle containing a drive motor, wherein the removable ratchet handle is attached to the ratchet extension and to the ratchet extension shaft.

10. (withdrawn) An improved power assisted lever arm ratchet as described in claim 9 in which said ratchet extension and ratchet extension shaft are approximately six to thirty inches in length.

11. (currently amended) A ratchet extension sleeve and ratchet extension shaft with attachment means to permit said ratchet extension sleeve and ratchet extension shaft to be installed on and to extend a conventional power assisted lever arm ratchet, wherein the attachment means are the same attachment means engaging a ratchet handle of the power assisted lever arm ratchet to a ratchet head of the power assisted lever arm ratchet.

a ratchet head having a socket mount and having a threaded collar attached to the interface thread of the second end of the ratchet extension sleeve;  
a ratchet head drive shaft attached to the ratchet head and connected to the drive tang of the ratchet extension shaft;  
and wherein the ratchet extension shaft is unsupported apart from support furnished by the drive shaft to the first end of the ratchet extension shaft and furnished by the ratchet head to the second end of the ratchet extension shaft.

13. (currently amended) The improved power assisted lever arm ratchet according to claim 12

wherein the ratchet extension shaft freely rotates between the drive shaft and the ratchet head drive shaft;

wherein the ratchet extension shaft is surrounded by a jacket of air between the drive shaft and the ratchet head drive shaft; and

wherein the jacket of air is uninterrupted between the drive shaft and the ratchet head drive shaft;

wherein the interface thread is compatible to the drive extension sleeve mounting collar,

wherein the threaded collar of the ratchet head is compatible to the interface collar,

wherein the drive tang is compatible to the drive shaft,

wherein the ratchet head drive shaft is compatible to the drive socket

~~further comprising~~

~~an interface collar furnished to the first end of the ratchet extension;~~

~~a ratchet head mount furnished to the second end of the ratchet extension.~~

14. (withdrawn) The improved power assisted lever arm ratchet according to claim 12

further comprising

an interface collar furnished to the first end of the ratchet extension;

a drive extension sleeve mounting collar (301) attached to the ratchet handle, wherein the interface collar is removably attached to the drive extension sleeve mounting collar.

15. (withdrawn) The improved power assisted lever arm ratchet according to claim 14

further comprising

a ratchet head mount furnished to the second end of the ratchet extension.

a drive extension mounting collar (302) attached to the ratchet head, wherein the ratchet head mount is removably attached to the drive extension mounting collar.

16. (withdrawn) The improved power assisted lever arm ratchet according to claim 12

further comprising

a ratchet head mount furnished to the second end of the ratchet extension.

a drive extension mounting collar (302) attached to the ratchet head, wherein the ratchet head mount is removably attached to the drive extension mounting collar.

17. (currently amended) An improved power assisted lever arm ratchet comprising

a ratchet handle containing an air drive motor,

an air line connection furnished to the ratchet handle;

a drive extension sleeve mounting collar mounted on the ratchet handle ;

a drive shaft protruding from the ratchet handle and surrounded by the drive extension sleeve mounting collar;

a ratchet extension sleeve having a first end formed as an interface collar and having a second end formed as an interface thread, wherein the first end of the ratchet extension sleeve is attached to the drive extension sleeve mounting collar of the ratchet handle;

a ratchet extension shaft having a first end and a second end, wherein the ratchet extension shaft is disposed substantially parallel to the ratchet extension sleeve, ~~and wherein the ratchet extension shaft is unsupported apart from support furnished to the~~

~~first end of the ratchet extension shaft and the second end of the ratchet extension shaft;~~

a drive socket attached to the first end of the ratchet extension shaft and connected to the drive shaft protruding from the ratchet handle;

a drive tang formed at the second end of the ratchet extension shaft;

a ratchet head having a socket mount and having a drive extension mounting collar attached to an interface thread of the second end of the ratchet extension sleeve;

wherein the drive tang of the second end of the ratchet extension shaft is attached to the ratchet head drive shaft of the ratchet head;

and wherein the ratchet extension shaft is unsupported apart from support furnished to the drive socket of the first end of the ratchet extension shaft and to the drive tang of the second end of the ratchet extension shaft.

18. (withdrawn) The improved power assisted lever arm ratchet according to claim 17

further comprising

an interface collar furnished to the first end of the ratchet extension;

a drive extension sleeve mounting collar (301) attached to the ratchet handle, wherein the interface collar is removably attached to the drive extension sleeve mounting collar.

19. (currently amended) An improved power assisted lever arm ratchet comprising

a ratchet handle (101) containing an air drive motor,

an air line connection (105) furnished to the ratchet handle (101);

a ratchet extension sleeve (102) having a first end and having a second end, wherein the first end of the ratchet extension sleeve is attached to the ratchet handle;

a ratchet extension shaft (202) having a first end and a second end, wherein the ratchet extension shaft (202) is disposed substantially parallel to the ratchet extension sleeve (102), and wherein the ratchet extension shaft (202) is unsupported apart from support furnished to the first end of the ratchet extension shaft and the second end of the ratchet extension shaft; wherein the first end of the ratchet extension shaft (202) is attached to a drive shaft disposed at the ratchet handle (101);

a ratchet head (103) having a socket mount (104) and having attached the second end of the ratchet extension sleeve (102) and having a ratchet head drive shaft attached the second end of the ratchet extension shaft (202),

wherein the ratchet extension shaft is held exclusively by the drive shaft and by the ratchet head drive shaft..

20. (currently amended) The improved power assisted lever arm ratchet according to claim [[19]] 21,

further comprising

a drive tang (202B) attached to the second end of the ratchet extension shaft (202) wherein the drive tang is constructed like the drive shaft (201);

[[a]] wherein the ratchet head drive shaft (203) attached to the ratchet head (103), wherein the drive tang (202B) engages the ratchet head drive shaft (203), wherein the ratchet head drive shaft is constructed like the drive socket (202A).

21. (new) The improved power assisted lever arm ratchet according to claim 19

~~further comprising a~~

wherein the drive shaft (201) is attached to the ratchet handle (101);

further comprising

a drive socket (202A) attached to the first end of the ratchet extension shaft (102),

wherein the drive socket (202A) engages the drive shaft (201).

22. (currently amended) The improved power assisted lever arm ratchet according to claim 19

further comprising

wherein the ratchet head (103) is demountable from the ratchet handle (101); and  
wherein an area between the ratchet extension shaft and the ratchet extension sleeve is  
completely filled with air.

23. (withdrawn) The improved power assisted lever arm ratchet according to  
claim 19

further comprising

male threads located on an end of the ratchet handle;

an interface collar furnished to the first end of the ratchet extension and engaging the  
male threads located at the end of the ratchet handle;

an interface thread (102B) located at the second end of the ratchet extension sleeve  
(102); and wherein the interface thread is constructed like the male threads;

a threaded collar disposed on the ratchet head (103), wherein the interface thread  
(102B) engages the threaded collar; and wherein the threaded collar is constructed like  
the interface collar.

24. (withdrawn) The improved power assisted lever arm ratchet according to  
claim 19

further comprising

a drive extension sleeve mounting collar (301) disposed at the ratchet handle (101);



a drive extension mounting collar (302) disposed at the ratchet head (103);  
a drive shaft (201) mounted at the ratchet handle (101), wherein the first end of the  
ratchet extension shaft (202) engages the drive shaft (201);  
a ratchet head drive shaft (203) mounted at the ratchet head (103), wherein the second  
end of the ratchet extension shaft (202) is engaged with the ratchet head drive shaft  
(203);  
wherein the ratchet extension is removably attached to the drive extension sleeve  
mounting collar (301) and to the drive extension mounting collar (302).

25. (withdrawn) The improved power assisted lever arm ratchet according to  
claim 19

further comprising

a drive extension sleeve mounting collar (301) disposed at the ratchet handle (101);  
a drive extension mounting collar (302) disposed at the ratchet head (103);  
a ratchet head drive shaft (203) mounted at the ratchet head (103), wherein the second  
end of the ratchet extension shaft (202) engages the ratchet head drive shaft (203);  
a drive shaft (201) mounted at the ratchet handle (101), wherein the first end of the  
ratchet extension shaft (202) is engaged with the drive shaft (201);  
wherein the ratchet extension is removably attached to the drive extension sleeve  
mounting collar (301) and to the drive extension mounting collar (302).

26. (withdrawn) The improved power assisted lever arm ratchet according to claim 19

further comprising

a ratchet head drive shaft (203) attached to the ratchet head (103) and extended to a length appropriate, wherein ratchet extension (202) is fixedly attached to ratchet head (103);

a drive shaft (201) attached to the ratchet handle (101), wherein the ratchet head drive shaft (203) engages the drive shaft (101);

a drive extension sleeve mounting collar (301) disposed at the ratchet handle (101), wherein the ratchet extension (102) is removably attached to the drive extension sleeve mounting collar (301)

27. (currently amended) The improved power assisted lever arm ratchet according to claim 19

wherein the ratchet extension is furnished by a tubular piece and wherein the ratchet extension shaft is furnished by a solid rod; and wherein the ratchet extension shaft is not supported by any bearings located between a surface of the ratchet extension shaft and an inner wall of the ratchet extension sleeve.

28. (currently amended) The improved power assisted lever arm ratchet according to claim 19

wherein the ratchet extension shaft (202) is connected to a rotary output of the air drive motor and wherein the socket mount ~~[(204)]~~ (104) is rotation transferring connected to the ratchet extension shaft (202).

29. (currently amended) The improved power assisted lever arm ratchet according to claim 19

wherein the ratchet extension shaft is disposed in the ratchet extension sleeve and disposed for freely rotating in the ratchet extension sleeve.

30. (currently amended) The improved power assisted lever arm ratchet according to claim 19

wherein the ratchet extension surrounds the ratchet extension shaft without contact between the ratchet extension sleeve and the ratchet extension shaft.

31. (currently amended) The improved power assisted lever arm ratchet according to claim 19

wherein the ratchet extension sleeve and the ratchet extension shaft are separate elements, wherein the relative position of ratchet extension sleeve and ratchet

extension shaft are defined by the respective mountings on the ratchet handle and on the ratchet head.